

WO 2005/060089 A2

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau

(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/060089 A2(51) International Patent Classification⁷: H03D 7/14 (74) Agent: STRÖM & GULLIKSSON IPC AB; P.O. Box 793, S-220 07 Lund (SE).

(21) International Application Number: PCT/EP2004/013000

(22) International Filing Date: 17 November 2004 (17.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 03028350.1 10 December 2003 (10.12.2003) EP
605/29,984 16 December 2003 (16.12.2003) US

(71) Applicant (for all designated States except US): TELEFONAKTIEBOLAGET LM ERICSSON (publ) [SE/SE]; S-164 83 Stockholm (SE).

(72) Inventors: and

(75) Inventors/Applicants (for US only): SJÖLAND, Henrik [SE/SE]; Gökblomstervägen 25, S-246 51 Låddeköpinge (SE). TILLMAN, Fredrik [SE/SE]; Kulgränden 5B, S-226 49 Lund (SE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EH, EG, ES, FI, GB, GD, GE, GH, GN, HR, IU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

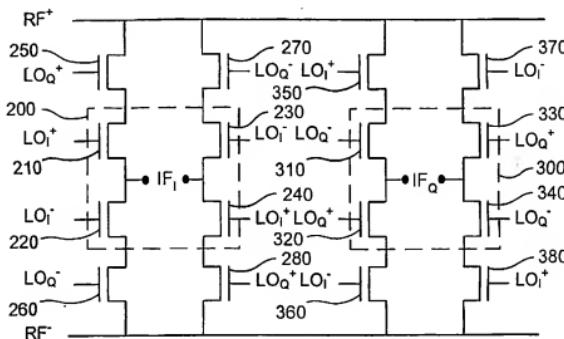
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BJ, CI, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: MIXER ARRANGEMENT



(57) Abstract: A quadrature connected passive mixer arrangement for frequency converting analog signals from a first to a second frequency. The arrangement comprises two parallel connected mixers provided as transistors. First and second LO signals and their inverse signals having separated phases are provided for driving the transistors. Signal path switches are provided between the RF terminals and the mixer transistors. The switches are driven by signals having a different phase than the signal driving the corresponding mixer transistor. Thus, any short circuit between IF terminals of the arrangement may be eliminated.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.